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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,767	07/05/2001	Thomas E. Mallouk	105557	2345

23490 7590 09/14/2004

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EXAMINER

TRAN, MY CHAU T

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/899,767	Applicant(s) MALLOUK ET AL.	
	Examiner MY-CHAU T TRAN	Art Unit 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16,33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16,33 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

1. Applicant's amendment filed 6/3/04 is acknowledged and entered. Claims 1, 8, and 13 have been amended. Claims 33-34 have been added.
2. Claims 17-32 were canceled by the amendment filed on 8/20/03.
3. Claims 1-16, and 32-33 are pending.

Priority

4. This application claims priority to a provisional application 60/216,931 filed 7/8/2000.

Election/Restrictions

5. Applicant has elected the following species for the elected invention (Claims 1-16, and 32-33) in the reply filed on 8/20/03:
 - a. A species of catalyst array support: carbon paper.
 - b. A species of detector: the human eye.
 - c. A species of solids: catalysts.
6. Claims 1-16, and 32-33 are treated on the merit in this Office Action.

Maintained Rejections

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-4, 6-10, 12-16, and new claims 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Senner (US Patent 6,528,191 B1).

Senner discloses a sensor assembly (apparatus) comprises a membrane electrode assemblies (MEAs) electrically isolated from one another and sequentially arranged in the path of a gas stream (col. 3, lines 24-27; figures 5-8). The sensor assembly comprises a container (ref. # 155) (cell body) with an inlet and outlet (ref #153, #190, & #192) that houses a membrane (ref. #180) (cell cover) (col. 12, lines 25-30; fig. 5). The membrane comprises distinct catalytic reactive surfaces or areas (ref. #150 and 152) (catalyst array support), a graphitic/carbon diffusion layer (ref #186) (catalytic mask/reagent mask), gaskets (ref. #184) (seals), and gas diffusion elements (ref. #188) (diffuser) (col. 12, lines 30-53; fig. 6-8). The sensor assembly further comprises a controller (detector) (col. 12, lines 53-56). Thus the sensor assembly of Senner anticipates the presently claimed invention.

The sensor assembly of Senner also discloses an independent catalyst mask and an independent reagent mask as claimed in the amended claim 1, 8, and 13. The sensor assembly comprises graphite blocks (fig. 3, ref # 118, and 120) with openings (fig. 3, ref. #122 and 124) wherein one graphite block is place on each side of the combination membrane assembly (refers to the catalyst array support) (fig. 3, ref. #112) (col. 8, line 62 to col. 9, line 11). Gaskets (fig. 3

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ref. #126 and 128) are place between the graphite blocks and the membrane (col. 8, line 62 to col. 9, line 11). Thus the sensor assembly of Senner anticipates the presently claimed invention.

Withdrawn Rejections

9. The rejections of claims 1-16 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention have been withdrawn in light of applicant's amendments of claims 1, 8, and 13.

10. The rejection of claims 1, 10, 12, and 13 under 35 USC 102(b) as being anticipated by Sarangapani (US Patent 5,683,829) has been withdrawn in light of applicant's amendments of claims 1, and 13.

11. The rejection of claims 1, 6-7, 13, and 16 under 35 USC 102(e) as being anticipated by Warren et al. (US Patent 6,187,164 B1) has been withdrawn in light of applicant's amendments of claims 1 and 13.

Response to Arguments

12. Applicant's arguments directed to the rejection under 35 USC 102(e) as being anticipated by Senner (US Patent 6,528,191 B1) was considered but they are not persuasive for the following reasons.

Applicant alleges that "*the cited reference fails to disclose the catalyst mask having material removed to form holes wherein the holes are in alignment with the multiple location for*

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supporting solids of the catalyst array support and defining an unobstructed area above each location for supporting solids and masking the remainder of the catalyst array support.” Thus the apparatus of Senner does not anticipate the presently claimed apparatus.

Applicant's arguments are not convincing since the apparatus of Senner does anticipate the presently claimed apparatus. The apparatus of Senner disclose graphite blocks (fig. 3, ref # 118, and 120) with openings (fig. 3, ref. #122 and 124) wherein one graphite block is place on each side of the combination membrane assembly (refers to the catalyst array support) (fig. 3, ref. #112) (col. 8, line 62 to col. 9, line 11). Thus the apparatus of Senner does disclose “*the catalyst mask having material removed to form holes wherein the holes are in alignment with the multiple location for supporting solids of the catalyst array support and defining an unobstructed area above each location for supporting solids and masking the remainder of the catalyst array support.*” Thus apparatus of Senner does anticipate the presently claimed apparatus and the rejection are maintained.

Allowable Subject Matter

13. Claims 5 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T TRAN whose telephone number is 571-272-0810. The examiner can normally be reached on Mon.: 8:00-2:30; Tues.-Thurs.: 7:30-5:00; Fri.: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDREW WANG can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mct
September 9, 2004


PADMASHRI PONNALURI
PRIMARY EXAMINER